

Listing of Claims:

1. (Currently Amended) An image processing apparatus for adjusting a gradation range of an input image, comprising:

photographing condition estimation means for estimating a photographing condition of the input image;

5 selection means for selecting ~~an arrangement of a weight pattern comprising a two-dimensionally-arrayed plurality of weight coefficients,~~ in correspondence with pixel positions in the input image, based on the photographing condition;

10 characteristic amount calculation means for calculating a characteristic amount with respect to the input image;

histogram generation means for generating a weighting histogram related to the characteristic amount based on ~~the a~~ state of two-dimensional arrangement of the plurality of weight coefficients contained in the selected weight pattern; ~~in~~
15 ~~correspondence with the pixel positions in the input image;~~

gradation conversion curve calculation means for calculating a gradation conversion curve based on the histogram; and

conversion means for performing gradation conversion using the gradation conversion curve so as to perform gradation
20 correction on the input image to adjust the gradation range to a predetermined gradation range.

2. (Previously Presented) An image processing apparatus according to claim 1, wherein the photographing condition estimation means estimates the photographing condition based on at least one of focal information, photometric information, zoom
5 position information, multi-spot photometric information, line-of-sight input information, and strobe flash information.

3. (Previously Presented) An image processing apparatus according to claim 1, wherein the photographing condition estimation means comprises:

focal position estimation means for estimating at least one
5 of three types of focal positions including a scenic photographing operation, a portraiture photographing operation, and a close-up photographing operation from the focal information;

object distribution estimation means for estimating at least
10 one of three types of object distributions of an entire screen, a center focus, and a central portion from the photometric information; and

integration means for integrally estimating the photographing condition by combining the at least one focal
15 position estimated by the focal position estimation means and the at least one object distribution estimated by the object distribution estimation means.

Claim 4 (Canceled).

5. (Previously Presented) An image processing apparatus according to claim 1, wherein the gradation correction comprises reducing the gradation range.

6. (New) An image processing apparatus according to claim 1, wherein the weight coefficients in the weight pattern are arranged in correspondence with pixel positions in the input image.

7. (New) An image processing apparatus according to claim 6, wherein the characteristic amount comprises an edge component calculated at each of the pixel positions in the input image, and the histogram generation means generates an edge
5 histogram as the weighting histogram based on the edge component at each of the pixel positions in the input image and the weight coefficient corresponding to each of the pixel positions.